WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS PATENT OF THE UNITED STATES IS:

1. A packaging device for a fluid product including :

a bottle formed by a body and having a neck with an axis X and an opening, the opening being defined by a rim which includes an inner portion and an outer portion, at least part of the outer portion being axially located above the inner portion;

a flow reducer mounted in the opening of the neck, the reducer having a flange resting on the inner portion of the rim of the neck;

the flange of the reducer extending to a non-zero distance from at least a part of the outer portion of the rim, and further wherein the flange is located axially between said inner and outer portions of the rim of the neck.

2. A device according to claim 1, wherein the reducer includes a free end which, with the reducer mounted in the bottle, is located at a non-zero distance, measured transversely relative to the axis X, from a wall of the bottle.

3. A device according to claim 2, wherein the transverse cross-section of the reducer is circular and diminishes towards its free end so as to form a tapered portion.

4. A device according to claim 1, wherein the reducer is retained by a force fit inside the neck of the bottle.

5. A device according to claim 4, wherein an outer surface of the reducer includes a plurality of ribs.

6. A device according to claim 1, wherein an outer surface of the reducer includes a plurality of ribs.

7. A device according to claim 1, wherein the reducer is made by molding a thermoplastic material from a single piece.

8. A device according to claim 7, wherein the reducer is made from a thermoplastic material selected from the group consisting of polyvinyl chlorides, polypropylenes, polyethylenes, polystyrenes, and composite of materials of the polypropylene/ethylene-vinyl-alcohol(EVOH)/polypropylene, polyethylene /polyethylene terephthalate, and polystyrene/EVOH/polyethylene type.

9. A device according to claim 1, wherein the device further includes a cap which closes the neck opening in a leaktight manner with respect to the product, wherein an inner wall of the cap bears on at least part of the outer portion of the rim.

10. A device according to claim 9, wherein the cap includes a screw thread on its inner wall designed to engage with a counterpart screw thread provided on an outer wall of the bottle neck.

11. A device according to claim 10, further including an applicator coupled to said cap.

12. A device according to claim 9, further including an applicator coupled to said cap.

13. A device according to claim 12, wherein the applicator is a brush.

14. A device according to claim 1, wherein the bottle is made of glass.

15. A device according to claim 1, wherein the bottle contains a cosmetic product.

16. A device according to claim 1, wherein the bottle contains a nail care product.

17. A device according to claim 1, wherein the bottle contains a nail polish.

18. A device as recited in claim 1, further including a cap removably mountable on said bottle, and wherein in a mounted position in which said cap is mounted on said bottle, said cap is in contact with said rim of said opening and further wherein in said mounted position said cap does not contact the flange of the reducer.

19. A device according to claim 18, wherein said reducer includes an end disposed within said bottle which is spaced from an inner side surface of said bottle such that a volume is provided between said end of said reducer and said inner side surface such that, when said bottle is moved to a non-upright position, product in said container is held in said volume without passing out of said opening of said neck thereby reducing spillage when said bottle is in the non-upright position.

20. A device according to claim 19, wherein said bottle contains a nail care product.

21. A device according to claim 20, wherein said outer portion of said rim includes a seal portion, and wherein said cap contacts said seal portion to form a seal when said cap is in said mounted position.

22. A device according to claim 1, wherein said outer portion of said rim is spaced from said inner portion by an axial distance larger than a thickness of said flange of said reducer.

23. A packaging device for a fluid product comprising:

a bottle having a body and a neck, said neck having an opening defined by a rim, said rim having an inner portion and an outer portion;

a reducer mounted in the opening of the neck, the reducer including a flange which overlies at least part of said inner portion of said rim;

a cap removably mountable on said neck, wherein in a mounted position said cap is in contact with said outer portion of said rim, and wherein in said mounted position said cap does not contact said reducer.

24. A device as recited in claim 23, wherein a topmost part of said outer portion of said rim is higher than topmost part of said flange of said reducer.

25. A device as recited in claim 24, wherein said topmost part of said outer portion of said rim forms a seal with said cap when said cap is in said mounted position.

26. A device as recited in claim 25, wherein said topmost part of said outer portion of said rim includes a protruding seal portion and said cap contacts said protruding seal portion when said cap is in said mounted position.

27. A device as recited in claim 25, wherein said inner portion of said rim is recessed with respect to said outer portion of said rim such that said outer portion of said rim is higher than said inner portion of said rim.

28. A device as recited in claim 23, wherein said inner portion of said rim is recessed with respect to said outer portion of said rim such that said outer portion of said rim is higher than said inner portion of said rim.

29. A device as recited in claim 28, wherein said inner portion of said rim is recessed from said outer portion by an amount greater than a thickness of said flange of said reducer.

30. A device as recited in claim 29, wherein a bottommost part of said outer portion of said rim is higher than a topmost part of said flange of said reducer.

31. A device as recited in claim 23, wherein a bottommost part of said outer portion of said rim is higher than a topmost part of said flange of said reducer.

32. A device as recited in claim 23, wherein said cap includes an applicator coupled thereto.

33. A device as recited in claim 32, wherein said bottle contains a cosmetic product.

34. A device as recited in claim 32, wherein said bottle contains a nail care product.

35. A device as recited in claim 34, wherein said reducer includes an upper portion and a lower portion, wherein said upper portion is disposed closer to said flange than said lower portion, and wherein an inner cross-section of said upper portion is larger than an inner cross-section of said lower portion.

36. A device as recited in claim 35, wherein said reducer includes a plurality of ribs on an outer surface of said upper portion.

37. A device as recited in claim 36, wherein a volume is defined between an outer surface of said lower portion of said reducer and an inner surface of said bottle such that

product in said bottle is received in said volume when said bottle is moved to a non-upright position and spillage is reduced.

38. A device as recited in claim 37, wherein said lower portion of said reducer is disposed inside of said neck of said container.

39. A device as recited in claim 23, wherein said reducer includes an upper portion and a lower portion, wherein said upper portion is disposed closer to said flange than said lower portion, and wherein an inner cross-section of said upper portion is larger than an inner cross-section of said lower portion.

40. A device as recited in claim 23, wherein said bottle contains a nail care product.

41. A device as recited in claim 40, wherein said bottle is formed of glass.

42. A device as recited in claim 41, wherein said reducer includes at least one rib protruding from a location below said flange, said at least one rib contacting an inner surface of said bottle, and further wherein said reducer is tapered below said at least one rib such that an inner cross-section of said reducer at a location of said at least one rib is larger than an inner cross-section of a lower portion of said reducer below said at least one rib.